



District Department of Transportation

## Speed Limit and Safety Nexus Studies for Automated Enforcement Locations in the District of Columbia

### 1900 Block Branch Avenue SE

#### Study Area and Location

District	PSA	Ward	ANC	Phase	Description
6	607	7	7B	Proposed	1900 Block Branch Avenue Southeast, Southbound



The *proposed* speed camera will be located in Ward 7 at the 1900 block of Branch Avenue Southeast in the southbound direction. Branch Avenue Southeast runs between Randle Circle Southeast to the north and Southern Avenue Southeast to the south. The posted speed limit is 25 MPH.

W7 - 532





District Department of Transportation

1900 Block Branch Avenue SE

## Field Assessment Summary

Branch Avenue Southeast runs in a north-south direction, and is classified as a minor arterial. Branch Avenue Southeast has two travel lanes in each direction. This site has the following characteristics:

- This is a residential area with houses and driveways.
- There are three schools in the area: Randle Highlands Elementary School, Howard Road Academy and Beers Elementary School.
- The Francis A. Gregory Library in the area and generates pedestrian activity.
- Fort David Park has a bike trail that goes through it and generates pedestrian activity.
- There are several bus stops nearby that generate pedestrian activity.
- There is sidewalk on the east side of the street.
- There is a crosswalk at U Street.
- The pavement is in good condition and there is curb and gutter with drainage inlets. There is a downgrade slope northbound.



Looking Northbound

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District Department of Transportation

1900 Block Branch Avenue SE



Looking Southbound

## Speed Data Analysis

Direction	Northbound	Southbound
Posted Speed Limit (MPH)	25	25
Mean Speed (MPH)	23	30
85th Percentile Speed (MPH)	31	39
10 MPH Pace Speed	23-32	29-38
Sample Size	7,433	7,460
ADT	14,893	

The mean speed limit is lower than the posted speed limit by 2 MPH in the northbound direction and higher than the posted speed limit by 5 MPH in the southbound direction at this location. The 85<sup>th</sup> percentile speed is higher than the posted speed by 6 MPH in the northbound direction and 14 MPH in the southbound direction.

## Crash Data Analysis

From the Accident Summary Report provided for the dates between January 1, 2010 and December 31, 2012, there were a total of 13 crashes at this location. A breakdown of number of crashes by collision type can be found in the chart on the next page. The most common types of collision at this location were Rear End (5

W7 - 534

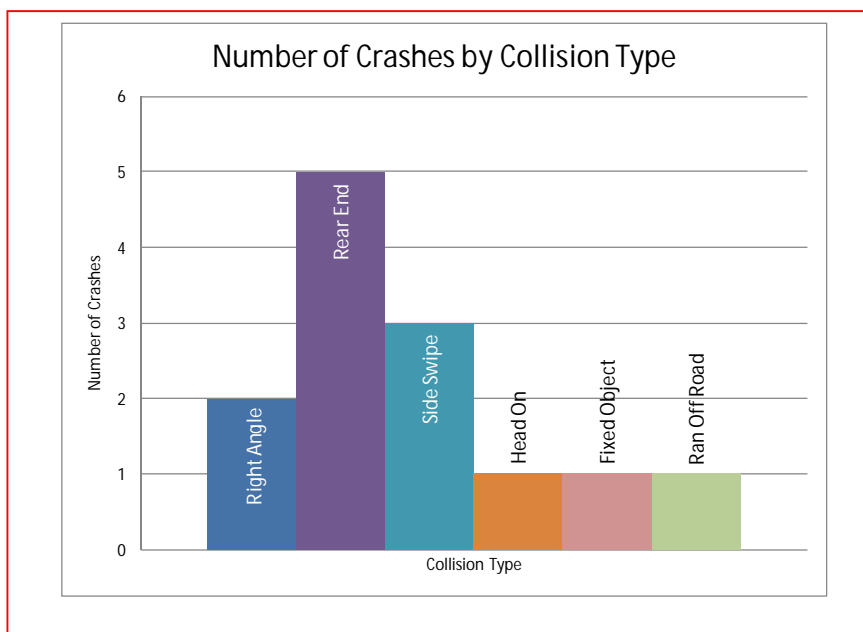


District Department of Transportation

1900 Block Branch Avenue SE

crashes), Side Swipe (3 crashes), and Right Angle (2 crashes). The other collision types had 1 crash or less each. There was 1 crash where vehicular speeding was the contributing factor. Furthermore, the site experienced 5 injury-related crashes.

Severity			Weather			Surface condition			Light Condition		
Total	13										
Fatal	0	0.0%	Clear	10	76.9%	Dry	9	69.2%	Day	12	92.3%
Injury	5	38.5%	Rain	2	15.4%	Wet	4	30.8%	Night	1	7.7%
Truck	4	30.8%	Snow	1	7.7%	Snow/Ice	0	0.0%			
Bus	1	7.7%									



## Safety Nexus

This site presents the following safety considerations which may establish a nexus between the speed camera and traffic safety:

1. Speed Data – The 85<sup>th</sup> percentile speed is much higher than the posted speed limit at this location.
2. Crash Data – This site experienced 5 injury-related crashes.
3. Field Assessment – The following site characteristics suggest a need for a safer travel environment:
  - a. This is a residential area with houses and driveways.

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District Department of Transportation

1900 Block Branch Avenue SE

- b. There are three schools in the area: Randle Highlands Elementary School, Howard Road Academy and Beers Elementary School.
- c. The Francis A. Gregory Library in the area and generates pedestrian activity.
- d. Fort David Park has a bike trail that goes through it and generates pedestrian activity.
- e. There are several bus stops nearby that generate pedestrian activity.

Due to the speed data analysis, the number of injury-related crashes, the specific site characteristics, the proximity of schools to the site, and other pedestrian generators, there is a nexus between traffic safety and the speed camera at this location.

W7 - 536

# SAMMAT ENGINEERING SERVICES, LLC

1515 RISING RIDGE ROAD  
MOUNT AIRY, MD 21771

[www.sammateng.com](http://www.sammateng.com)

## 1900 block of Branch Ave SE Speed

SB

Start Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total
11/20/13	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	0	0	1	6	5	9	3	2	0	1	0	0	0	0	27
02:00	0	1	3	8	13	10	9	1	0	0	0	0	0	0	45
03:00	2	0	0	3	12	6	3	1	0	1	0	0	0	0	28
04:00	0	0	3	8	10	9	3	4	0	1	0	0	0	0	38
05:00	5	0	3	7	25	21	21	3	1	2	0	0	0	0	88
06:00	43	1	6	29	20	40	16	7	3	0	0	0	0	0	165
07:00	77	4	17	56	60	69	22	8	1	0	0	0	0	0	314
08:00	78	2	26	62	90	51	26	7	1	1	0	0	0	0	344
09:00	36	3	19	44	70	76	31	3	2	0	1	0	0	0	285
10:00	26	0	17	43	104	80	29	5	0	0	0	0	0	0	304
11:00	21	4	21	76	100	88	32	4	2	2	0	0	0	0	350
12 PM	24	2	11	73	137	105	41	9	4	1	0	0	0	0	407
13:00	33	2	26	72	138	84	34	10	1	1	0	0	0	0	401
14:00	40	11	21	73	145	96	42	10	4	0	0	1	0	0	443
15:00	57	4	34	85	154	170	74	20	4	1	0	0	0	0	603
16:00	65	5	28	119	213	187	80	20	8	0	0	0	0	0	725
17:00	57	3	41	140	247	156	49	3	2	0	0	0	0	0	698
18:00	52	3	64	203	198	102	34	7	1	0	0	0	0	0	664
19:00	31	5	40	101	147	92	38	9	0	1	1	0	0	0	465
20:00	17	4	34	74	88	83	21	6	2	0	0	0	0	0	329
21:00	15	2	24	51	82	62	17	7	3	0	0	0	0	0	263
22:00	7	0	12	50	58	41	18	6	0	2	1	0	0	0	195
23:00	12	0	3	38	51	35	21	6	3	0	0	0	0	0	169
Total	698	56	454	1421	2167	1672	664	158	42	14	3	1	0	0	7350

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SB

Start Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total
11/21/13	1	4	7	17	24	22	10	2	0	1	0	0	0	0	88
01:00	1	0	0	7	4	5	3	1	0	1	0	0	0	0	22
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	2	4	7	24	28	27	13	3	0	2	0	0	0	0	110
Grand Total	700	60	461	1445	2195	1699	677	161	42	16	3	1	0	0	7460

15th Percentile : 14 MPH  
 50th Percentile : 31 MPH  
 85th Percentile : 39 MPH  
 95th Percentile : 43 MPH

Stats  
 Mean Speed(Average) : 30 MPH  
 10 MPH Pace Speed : 29-38 MPH  
 Number in Pace : 3514  
 Percent in Pace : 47.1%  
 Number of Vehicles > 25 MPH : 5672  
 Percent of Vehicles > 25 MPH : 76.0%

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## 1900 block of Branch Ave SE Speed

NB

Start Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total
11/20/13	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	2	0	3	4	6	1	1	0	0	0	0	0	0	0	17
02:00	0	0	3	14	6	1	0	0	0	0	0	0	0	0	24
03:00	0	0	6	20	18	1	0	1	0	0	0	0	0	0	46
04:00	2	0	10	35	54	12	5	1	0	0	0	0	0	0	119
05:00	23	13	71	175	113	26	9	0	0	0	0	0	0	0	430
06:00	112	93	181	214	64	27	9	1	0	0	0	0	0	0	701
07:00	220	84	66	40	20	2	0	1	0	0	0	0	0	0	433
08:00	241	48	61	47	20	2	0	0	0	0	0	0	0	0	419
09:00	37	22	137	219	77	19	7	0	0	0	0	0	0	0	518
10:00	34	6	105	168	86	21	3	0	0	0	0	0	0	0	423
11:00	20	10	56	162	93	29	5	2	1	0	0	0	0	0	378
12 PM	23	9	78	164	90	24	7	1	0	0	0	0	0	0	396
13:00	26	8	83	143	97	23	7	1	0	0	0	0	0	0	388
14:00	26	16	87	158	74	17	7	0	0	0	0	0	0	0	385
15:00	34	9	103	151	77	20	2	0	0	0	0	0	0	0	396
16:00	59	25	112	138	58	9	5	0	0	0	0	0	0	0	406
17:00	101	70	132	89	28	4	1	0	0	0	0	0	0	0	425
18:00	40	28	127	111	40	8	1	0	0	0	0	0	0	0	355
19:00	18	12	87	131	38	9	1	0	0	0	0	0	0	0	296
20:00	14	12	83	106	42	11	5	0	0	0	0	0	0	0	273
21:00	14	7	67	100	41	7	2	0	1	0	0	0	0	0	239
22:00	7	6	33	85	40	9	2	0	0	0	0	0	0	0	182
23:00	4	2	18	45	27	8	3	1	0	0	0	0	0	0	108
Total	1057	480	1709	2519	1209	290	82	9	2	0	0	0	0	0	7357



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NB

Start Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total
11/21/13	3	1	12	25	14	5	1	0	0	0	0	0	0	0	61
01:00	1	2	1	7	4	0	0	0	0	0	0	0	0	0	15
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	4	3	13	32	18	5	1	0	0	0	0	0	0	0	76
Grand Total	1061	483	1722	2551	1227	295	83	9	2	0	0	0	0	0	7433

15th Percentile : 9 MPH  
 50th Percentile : 24 MPH  
 85th Percentile : 31 MPH  
 95th Percentile : 35 MPH

Stats  
 Mean Speed(Average) : 23 MPH  
 10 MPH Pace Speed : 23-32 MPH  
 Number in Pace : 3554  
 Percent in Pace : 47.8%  
 Number of Vehicles > 25 MPH : 3547  
 Percent of Vehicles > 25 MPH : 47.7%

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MOUNT AIRY, MD 21771

[www.sammatteng.com](http://www.sammatteng.com)

## 1900 block of Branch Ave SE Volume

Start Time	20-Nov-13		SB		NB		Combined		21-Nov-Thu	SB		NB		Combined	
	Wed		A.M.	P.M.	A.M.	P.M.	A.M.	P.M.		A.M.	P.M.	A.M.	P.M.	A.M.	P.M.
12:00	*		*	113	*	99	*	212		<b>31</b>	*	<b>20</b>	*	<b>51</b>	*
12:15	*		*	92	*	88	*	180		<b>20</b>	*	<b>12</b>	*	<b>32</b>	*
12:30	*		*	113	*	104	*	217		<b>15</b>	*	<b>18</b>	*	<b>33</b>	*
12:45	*		*	89	*	105	*	194		<b>22</b>	*	<b>11</b>	*	<b>33</b>	*
01:00	*		*	112	*	94	*	206		14	*	8	*	22	*
01:15	*		*	102	*	106	*	208		8	*	7	*	15	*
01:30		14		84		10		99	24						
01:45		13		103		7		89	20						
02:00		14		103		7		99	21						
02:15		10		110		5		85	15						
02:30		12		114		5		94	17						
02:45		9		116		7		107	16						
03:00		10		114		10		111	20						
03:15		3		156		11		94	14						
03:30		8		158		9		103	17						
03:45		7		175		16		88	23						
04:00		12		177		20		104	32						
04:15		7		<b>193</b>		24		94	31						
04:30		10		<b>167</b>		33		<b>107</b>	43						
04:45		9		<b>188</b>		42		<b>101</b>	51						
05:00		15		<b>192</b>		56		<b>110</b>	71						
05:15		11		161		95		<b>108</b>	106						
05:30		26		171		121		101	147						
05:45		36		174		158		106	194						
06:00		33		153		180		90	213						
06:15		42		182		<b>157</b>		100	<b>199</b>						
06:30		30		177		<b>200</b>		92	<b>230</b>						
06:45		60		152		<b>164</b>		73	<b>224</b>						
07:00		61		120		<b>197</b>		79	<b>258</b>						
07:15		72		128		87		84	159						
07:30		83		124		66		74	149						
07:45		<b>98</b>		93		83		59	181						
08:00		<b>78</b>		82		79		67	157						
08:15		<b>95</b>		82		82		68	177						
08:30		<b>100</b>		80		95		69	195						
08:45		71		85		163		69	234						
09:00		54		54		144		78	198						
09:15		81		71		159		63	240						
09:30		73		67		117		50	190						
09:45		77		71		98		48	175						
10:00		94		61		121		52	215						
10:15		61		51		91		53	152						
10:30		73		41		101		43	174						
10:45		76		42		110		34	186						
11:00		83		49		79		26	162						
11:15		86		58		93		35	179						
11:30		89		30		101		31	190						
11:45		92		32		105		16	197						

Total	1988	5362	3508	3849	5496	9211		110	0	76	0	186	0
Day Total	7350		7357		14707		110		76		186		
% Total	13.5%	36.5%	23.9%	26.2%			59.1%	0.0%	40.9%	0.0%			
Peak	07:45	04:15	06:15	04:30	06:15	04:15	12:00		12:00		12:00		
Vol.	371	740	718	426	911	1152	88		61		149		
P.H.F.	0.928	0.959	0.898	0.959	0.883	0.954	0.710		0.763		0.730		

ADT                      ADT 14,893                      AADT 14,893

DC Department of Transportation - Traffic Accident Reporting and Analysis System

## Accident Summary Report (R-8)

**Corridor:** BRANCH AVE,SE From S ST,SE TO THIRTY THIRD ST,SE

**Time Period Covered:** From 01/01/2010 To 12/31/2012

**Prepared By:** Rahul Jain

**Prepared Date:** 9/15/2013

Total Number of Accident:	13	<b>Collision Type</b>	<b>#ACC</b>	<b>%</b>	<b>Collision Type</b>	<b>#ACC</b>	<b>%</b>
Total Number of Fatalities:	0	Right Angle:	2	15.4%	Fixed Object:	1	7.7%
Total Number of Injuries:	6	Left Turn:	0	0.0%	Ran Off Road:	1	7.7%
Total Number of Disabling Injuries:	0	Right Turn:	0	0.0%	Ped. Involved:	0	0.0%
Total Number of NonDisabling Injuries:	3	Rear End:	5	38.5%	Backing:	0	0.0%
Total Number of Pedestrians Involved:	0	Side Swiped:	3	23.1%	Non Collision:	0	0.0%
Total Number of Bicycles Involved:	0	Head On:	1	7.7%	Under/Over Ride:	0	0.0%
Total Number of Motorcycles Involved:	0	Parked:	0	0.0%	Unspecified:	0	0.0%
<b>Time of Day</b>				<b>#ACC</b>	<b>%</b>	<b>Day of week</b>	
07:30 ~ 09:30:				0	0.0%	Sunday:	
09:30 ~ 11:30:				1	7.7%	Monday:	
11:30 ~ 13:30:				1	7.7%	Tuesday:	
13:30 ~ 16:00:				3	23.1%	Wednesday:	
16:00 ~ 18:30:				6	46.2%	Thursday:	
18:30 ~ 07:30:				2	15.4%	Friday:	
Unspecified:				0	0.0%	Saturday:	
<b>Weather Condition</b>				<b>#ACC</b>	<b>%</b>	<b>Surface Condition</b>	
Clear:				10	76.9%	Dry:	
Rain:				2	15.4%	Wet:	
Snow:				1	7.7%	Snow/Ice:	
Sleet/Hail:				0	0.0%	Slush:	
Fog/Mist:				0	0.0%	Water/Sand:	
Crosswind/Blowing Sand:				0	0.0%	Repairing:	
Unspecified:				0	0.0%	Unspecified:	
<b>Type of Vehicle</b>				<b>#VEH</b>	<b>%</b>	<b>Accident Severity Type</b>	
Passenger Car:				21	80.8%	Fatal Collision:	
Bus:				1	3.8%	Injury Collision:	
Truck:				4	15.4%	PDO Collision:	
Taxi:				0	0.0%	<b>Light Condition</b>	
Minivan:				0	0.0%	Daylight:	
Police/Emergency Vehicle:				0	0.0%	Dawn/Dusk:	
Motorcycle/Moped:				0	0.0%	Dark(Lighted):	
Bicycle:				0	0.0%	Dark(Not Lighted):	
Fixed Object:				0	0.0%	Dark(Unknown Lighting):	
Unspecified:				0	0.0%	Unspecified:	
<b>Contributing Factor</b>				<b>#VEH</b>	<b>%</b>	<b>Pedestrian Actions</b>	
Driver: Speed:				1	3.8%	In Crosswalk with Signal:	
Driver: Alcohol/Drug:				1	3.8%	In Crosswalk against Signal:	
Driver: Electronic Device:				0	0.0%	In Crosswalk no Signal:	
Driver: Others:				6	23.1%	In Unmarked Crosswalk:	
Vehicle:				0	0.0%	Not in Crosswalk:	
Roadway:				0	0.0%	From Between Parked Cars:	
Unspecified:				18	69.2%	Unspecified:	

10 Records are not approved as of 9/15/2013 2:12:52 PM